

### **Abstract of the Disclosure**

[0058] Systems and methods for controlling amplification of a pair of pulse width modulated signals. In one embodiment, a system comprises an audio amplifier which is configured to receive a pulse code modulated (PCM) input signal, convert this signal to a pulse width modulated (PWM) signal in a controller, and amplify the PWM signal in an output stage. The controller separates the PWM signal into a high-side signal and a low-side signal. The controller incorporates digitally programmable delays into the processing paths for each of the high-side and low-side signals. The high-side and low-side signals are separately provided to the output stage. The separate high-side and low-side signals can be used to individually control (e.g., turn off) the high-side and low-side transistors. Circuitry is included to generate a short low-side pulse when both transistors are turned off in order to drain the gate charge from the high-side transistor.